## DECISION



## THE COMPTROLLER GENERAL OF THE UNITED STATES

WASHINGTON, D.C. 20548

61374

FILE:

B-186276

DATE:

August 20, 1976

MATTER OF:

Maremont Corporation

98651

#### DIGEST:

- 1. After side-by-side testing, technical and cost evaluation, and discussions with two sources in preprocurement context, Army selected foreign MAG58 machine gun instead of American-made M60E2. Although protester now complains that selection process was procurement and Army did not comply with applicable laws and regulations, protester entered into process with "eyes wide open" and was not prejudiced. Army's selection process was necessary to determine minimum machine gun needs, since there was insufficient data for Army to make such determination prior to completion of process.
- 2. Agency may legitimately conduct preprocurement tests and discussions with potential suppliers as well as consider cost when formulating minimum needs.
- 3. Since Army machine gun selection program was not procurement but rather process to determine minimum needs, no written Determinations and Findings (D&F) had to be prepared prior to selection of foreign machine gun as minimum need. In any case, agency's failure to prepare D&F prior to conducting negotiations preparatory to executing sole-source contract is deviation of form rather than substance.
- 4. Although specifications based on superior characteristics in excess to Government's minimum needs are generally considered overly restrictive, Army, acting within broad discretion, could legitimately specify machine gun, as critical human survival item, to be as reliable and effective as possible. In reasonably determining that MAG58 instead of M60E2 reflected minimum machine gun need primarily because of superior reliability, Army considered MAG58's higher cost, possible lower cost effectiveness, and deficiencies (e.g., broken rivet and cracked receiver problems) and M60E2's strong points (e.g., commonality with other weapons), as well as suggested repair policy which may have significantly improved M60E2's reliability.

- suppliers fairly or inform them as fully as possible of what is needed, it may reflect on reasonableness of minimum needs determination. Army machine gun selection process, by which MAG58 was found to be minimum need, was fair and although Army did not specifically set forth bases on which weapons would be evaluated prior to side-by-side tests, all parties realized weapon operational reliability was paramount performance characteristic, and that cost was secondary in importance.
- 6. Replacement "off the shelf" coaxial machine gun program involving limited testing and evaluation does not fall under DOD Design to Cost Policy Directive 5000.28. In any case, Directive is matter of DOD policy, and does not establish legal rights and responsibilities.
- 7. Buy American Act, 41 U.S.C. 10a-d, is not applicable to proposed MAG58 machine gun purchase from foreign firm because Army has sufficient sole-source award justification and can therefore validly determine that MAG58's are not manufactured in United States "in sufficient and reasonably available commercial quantities and of a satisfactory quality." Also, Army discretionary determination that Act's application would not be in public interest cannot be questioned. In addition, Act does not apply to initial quantity of weapons to be purchased for foreign deployment and domestic training for foreign deployment.
- 8. Since MAG58 machine gun manufactured by foreign firm represents Government's minimum needs, and extended period is needed to develop domestic supplier of MAG58, Army determination that Balance of Payments program (ASPR §§ 6-800-6-807) is not applicable to MAG58's procurement is valid.
- 9. Foreign firm manufacturing MAG58 machine guns agreed to ASPR § 7-104.93, which generally requires use of American-melted specialty metals. Metallurgical differences between American-melted (if used) and foreign specialty metals now used in MAG58 possibly could have significant impact on performance. However, no significant doubt has been cast on reasonableness of MAG58's selection, since Army technical personnel have found requalification of MAG58, beyond ordinary first article testing, to be unnecessary, and while there may be different technical opinions, Army judgment on this highly technical question has not been shown to lack reasonable basis.

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#### I. BACKGROUND

By letter dated April 7, 1976, Maremont Corporation (Maremont) of Saco, Maine, protested the award of any contract by the Department of the Army to purchase MAG58 coaxial machine guns from Fabrique Nationale (FN) of Belgium. The Secretary of the Army had announced on March 29, 1976, that the FN-manufactured weapon, instead of the M60E2 machine gun manufactured by Maremont, would be selected to replace the M-219 coaxial machine gun for use on Army tanks and other armored vehicles.

Our Office monitored and conducted a review of the Army's machine gun replacement program at the request of Senator Edmund Muskie on behalf of the State of Maine congressional delegation. Our findings regarding the program were issued in a report entitled Selection of a Machine Gun for Armored Vehicles, PSAD 76-112, B-156500(5), March 23, 1976, prior to the announcement of the MAG58 selection.

In evaluating the merits of Maremont's protest, we have utilized the knowledge gained from our audit and technical review of the Army program. This review included monitoring the side-by-side tests between the MAG58 and M60E2 and examining the comparative cost studies performed by the Army.

The M-219 machine gun, which the Army itself manufactured, had been in use on tanks for 16 years, but had never been considered reliable. Therefore, in 1973 and 1974, the Army initiated plans to replace the M-219 with an "off the shelf" 7.62 millimeter (mm) coaxial machine gun. An "off the shelf" weapon was required because the Army needed a replacement machine gun as soon as possible, in view of the M-219's unreliability and the unacceptable time frame incident to the development of a new coaxial machine gun.

Comparative tests of United States and foreign "off the shelf" machine guns were conducted in late 1974 and early 1975. The American candidates in the testing were a modified version of the Maremont M60. machine gun currently in use by Army infantry, the M60(MOD) machine gun, and an improved version of the M-219. In the operational tests conducted (OT II), the M60(MOD) proved to be far superior to both the M-219 and the improved M-219. In addition, selective laboratory tests were conducted on five foreign-made machine guns. The results

indicated that FN's MAG58 was far more reliable than the other foreign-made weapons tested.

In early 1975 further modifications were made to the M60(MOD) by Maremont in coordination with the Army, and the weapon was redesignated the M60E2 coaxial machine gun. After further study, two cognizant Army commands recommended purchase of the M60E2 to replace the M-219. However, in April 1975, after being informed of the MAG58's exceptional performance in the foreign weapon tests, Army Headquarters' officials decided to introduce the MAG58 as a contender to the M60E2. Therefore, side-by-side tests of the M60E2 and MAG58 were planned to compare the capabilities of the two weapons.

On August 19, 1975, a set of technical and performance characteristics (Required Operational Capability (ROC)) were developed. The planned MAG58-M60E2 side-by-side test results were to be judged against the ROC.

The comparative testing of the MAG58 and M60E2 consisted of an operational test (OT III) and a development test (DT III) conducted by independent Army activities. In view of the "off-the-shelf" requirement, the Army procured coaxial machine guns, which were essentially production line weapons, from FN and Maremont for the tests. The tests were designed to be comparable to the earlier M60(MOD) OT II tests.

The OT III was essentially a field test designed to simulate the operational environment in which the weapon would be utilized. This test was performed with operational troops using their organic tank equipment. The OT III was intended to provide data concerning the relative operational effectiveness and military utility of the weapons. Weapon reliability was the primary concern of this test.

The primary statistical data to be obtained from the OT III were mean rounds between stoppages (MRBS) and mean rounds between failures (MRBF) based upon the firing of the first 50,000 rounds. (100,000 rounds were scheduled to be fired.) A stoppage includes actual unintentional cessations of firing as well as potential stoppages, e.g., potential weapon failures found during nonfiring activities. A failure is defined as a stoppage lasting more than 1 minute.

As a result of the OT III, the MAG58 proved to be about 3.5 times as reliable as the M60E2, as indicated by the following table:

•	MRBS	MRBF
M60E2	846	1699
MAG58	2962	6442
ROC minimum	850	2675
ROC preferred	1750	5500

OT III data indicated other relative strengths and weaknesses in the two weapons. For example, the rivets located alongside the MAG58's receiver broke between 30,000 and 50,000 rounds. Also, the MAG58 receivers developed cracks between 66,000 and 75,000 rounds.

The DT III was an engineering test using standard test procedures and experienced test technicians. One primary purpose of the DT III in this case was diagnostic, e.g., to determine the causes of failures and stoppages. Factors such as endurance, reliability, accuracy, safety, barrel performance, rate of fire (ROF), effect of varying environmental conditions and other engineering subtests were also evaluated under laboratory test range conditions.

The DT III tests indicated that the MAG58 was about 2.5 times as reliable as the M60E2 for the first 50,000 rounds fired. Also, the MAG58 had a higher ROF (in excess of the ROC's stipulated ROF) and was more reliable during sand and dust, and corrosive tests. The M60E2 barrels were considered superior to the MAG58 barrels during high rates of sustained fire.

In addition to the foregoing, at the outset of the competitive test program, the Army began preparing a comparative cost study of the candidate machine guns. The life cycle costs of the two weapons were eventually computed after the tests' completion, and are summarized as follows:

		M60E2		MAG58	
Research and development (R&D) <sup>2</sup>	\$	242,200	\$	495,900	
Investment		22,838,600		42,691,200	
Operation and support (0&S) <sup>3</sup>		8,424,600 1,505,400		7,413,500 0,600,600	
Peacetime ammunition <sup>4</sup>		6,120,000		5,120,000	
Wartime ammunition <sup>5</sup>		6,160,000 3,785,400		3,208,000 4,928,600	

- 1 This computation was based on the Army purchase of 18,191 weapons having a 15-year useful life. Also, it was assumed that the Army would purchase 16,000 of the MAG58's from FN and produce the remaining 2,191 weapons in the United States to create a mobilization base, and that production of the M60E2 would be commenced immediately following the current M60 infantry machine gun production run.
- 2 R&D costs are Army in-house costs including development engineering, production engineering planning, machine gun mount prototype, and system testing costs.
- 3 O&S costs include the phasing out of the M-219's, which remain in the system for about 6 years. These costs were not reflected in the table on B-156500(5), supra, at 26.
- 4 Assumes each gun fires 4,260 rounds a year for 15 years.
- 5 Assumes a 180-day war at different consumption rates per gun alternative.

As we stated in B-156500(5), supra, at 27:

"The primary discriminators among these costs are the manufacturing costs, the non-recurring investment costs to establish a mobilization base in the U.S., and the consumption costs of wartime ammunition. The MAG58 gun by itself would be 115 percent more costly than the M60E2 -- averaging \$1,517 compared with \$707. This translates into a \$14.7 million investment differential. Part of the reason for Maremont's lower cost is probably due to the use of U.S. Government-owned equipment, whereas

some of the higher MAG58 costs are probably due to an expensive machining process. The non-recurring costs for a mobilization base are about \$4.0 million."

The Army also made a Cost Operational Effectiveness Analysis (COEA) of the two machine guns. The end results of the Army's analysis were:

the MAG58 had the highest relative cost efficiency if ammunition costs were included in the analysis.

the M60E2 had the highest cost efficiency if ammunition costs were not considered.

A number of other studies and recommendations were made by various Army officials and commands, which unanimously recommended the selection of the MAG58. On March 29, 1976, the Secretary announced the MAG58's selection, conditioned upon obtaining an acceptable licensing agreement from FN to allow for eventual domestic production.

Both prior and subsequent to the MAG58 selection, Army and FN officials had discussed certain aspects of any potential procurement of the MAG58, e.g., whether FN would accept the general requirement that United States-melted specialty metals be used and whether a licensing agreement for domestic manufacture of the MAG58 could be arranged.

On June 24, 1976, the Under Secretary of the Army concurred with the Determinations and Findings (D&F) of the Assistant Secretary of the Army (R&D) determining that the Buy American Act, 41 U.S.C. §§ 10a-d (1970), would not be applicable to this procurement. In this regard, it was found that approximately 9,600 machine guns were required on a priority basis for mounting on newly manufactured and reconditioned tanks to replace the unsatisfactory M-219 in combat forces. Further production of the M-219 was halted in May 1975 and the M-219 supply would be exhausted in December 1976. Also, it was estimated that approximately 34 months would be needed from the time a technical data package with production rights was obtained from FN before a domestic firm would be able to start delivering MAG58's.

Since the initial quantity of MAG58's to be acquired from FN were to be deployed on tanks in Europe, the Assistant Secretary also executed a D&F determining that the Department of Defense (DOD) Balance of Payments Program (Armed Services Procurement Regulation (ASPR) \$\$ 6-800 to 6-807 (1975 ed.)), was not applicable to the proposed procurement.

On June 24, 1976, a contracting officer executed a D&F justifying a sole-source negotiated contract with FN to purchase the MAG58 as the only firm capable of fulfilling the Army's needs in the time frame required.

On May 19, 1976, Maremont and members of the Maine congressional delegation had filed suit in the United States District Court for the District of Columbia (Maremont Corporation v. Rumsfeld, Civil Action No. 76-0895) seeking to enjoin any award to FN pending our decision in this matter. On July 1, 1976, after oral argument, the United States District Court issued a preliminary injunction enjoining the Army from entering into any contract with FN for production and/or purchase of the MAG58 machine guns until 5 days after our Office issues a decision on the protest. A written memorandum order to this effect was issued by the court on July 2, 1976.

Maremont protested the Army's MAG58 selection to our Office on April 7, 1976. On April 12, 1976, the Army was notified by our Office that a protest had been filed, and that a documented report responsive to the protest would be required. We formally requested the Army's report by letter dated April 13, 1976. On April 21, 1976, Maremont supplied our Office with the details of its protest, which we furnished the Army. On May 17, 1976, Maremont submitted an additional basis for protest that an award to FN would violate the statutory American preference for domestically-melted specialty metals. After several inquiries by representatives of our Office into the status of the report, the Army submitted a report on the protest on June 30, 1976.

On July 16, 1976, Maremont responded to the Army's report on the . protest as provided in section 20.3(d) of our Bid Protest Procedures (4 C.F.R. § 20.3(d) (1976)). At the request of Maremont, and pursuant to section 20.7 of our procedures (4 C.F.R. § 20.7 (1976)), a conference on the protest was held in our Office on July 20, 1976, which was

attended by representatives of Maremont, FN, and the Army. After the conference, all parties were permitted to submit further comments on the protest, the last of which were received in our Office on July 29, 1976. As provided in section 20.8 of our procedures (4 C.F.R. § 20.8 (1976)), our Office has established a goal of 25 working days for issuing a decision after receipt of all information submitted by all parties.

Although it is the ordinary practice of our Office not to render a decision where the issues involved are likely to be disposed of in litigation before a court of competent jurisdiction, see, e.g., Nartron Corporation, 53 Comp. Gen. 730 (1974), 74-1 CPD 154, we will consider Maremont's protest since the court desires and expects our decision on the protest. See 4 C.F.R. § 20.10 (1976); Data Test Corporation, 54 Comp. Gen. 715 (1975), 75-1 CPD 138. We will also take into our consideration the arguments made by Maremont to the court.

Maremont's two basic contentions are: (1) the Army's selection process violated applicable procurement laws and regulations; and (2) an award to FN would violate various laws and regulations, establishing a preference for American products, e.g., the Buy American Act.

For the reasons stated below, we find that the Army violated meither applicable procurement nor American preference laws or regulations. Therefore Maremont's protest is for denial.

#### II. COMPLIANCE WITH PROCUREMENT LAWS AND REGULATIONS

## A. Maremont's contentions

Maremont has asserted that the replacement machine gun selection program was in reality a source selection or procurement process governed by the applicable procurement rules and regulations, which the Army violated. To support its contentions, Maremont notes that the Army (1) established a need for a replacement machine gun; (2) evaluated existing weapons; (3) established certain minimum technical and performance requirements for the weapon (the ROC); (4) tested weapons for comparison with the requirements; (5) made a cost-technical trade-off study; (6) decided to select a particular weapon manufactured by one firm; and (7) conducted various discussions with that firm. Maremont

asserts that the Army necessarily knew at the outset of the program that the selection of a particular weapon meant a single manufacturer was also being selected. Maremont contends that the Army's actions resemble a procurement in all respects except for formal execution of a contract with FN.

Maremont argues that the Army cannot claim that uncertainty as to needs justified a failure to comply with the procurement rules and regulations because ASPR § 3-210.2(xiii) (1975 ed.), quoted below, provides in such situations that competitive negotiation is authorized:

"when it is impossible to draft, for a solicitation of bids, adequate specifications or any other adequately detailed description of the required supplies or services;"

One of the procurement requirements which Maremont contends the Army violated is ASPR § 3-306 (1975 ed.) because the D&F justifying the sole-source procurement was not executed prior to selecting FN as the contractor and conducting contract negotiations preparatory to a formal award.

Maremont also contends that the Army did not inform Maremont of the evaluation criteria by which the machine guns would be evaluated, nor of the relative weights of the criteria in violation of ASPR § 3-501(D)(i) (1975 ed.); consequently, the procurement was not competitive as required by ASPR §§ 1-300.1, 1-304.1 and 3-101(d) (1975 ed.). Specifically, Maremont asserts it did not know the Army's priorities regarding design and performance standards, nor that very little weight would be accorded low cost. Had the bases of evaluation been known Maremont contends that it would have modified the M60E2 so as to be at least equal in performance to the MAG58 at a lower cost. Maremont also asserts that the Army's failure to state evaluation criteria precludes an effective review by our Office of the propriety of the Army's evaluation of the two weapons.

Maremont also contends that the evaluation process was defective and that the MAG58 does not represent the Government's minimum needs for the following reasons, which Maremont asserts were brought to the attention of the Army in B-156500(5), supra:

(1) the cost evaluation performed by the Army was invalid;

- (2) the Army did not properly consider that the purchase of the M60E2 would be more beneficial to the United States in terms of commonality of weapons, since a significant percentage of the M60E2 parts are interchangeable with the M60 infantry machine gun;
- (3) the MAG58 has an overall average cyclic ROF far in excess of the ROC's specified ROF while the M60E2 complied with the ROC requirement;
- (4) the Army arbitrarily refused to allow Maremont to replace bolt assemblies in the M60E2's at appropriate times during the OT III as Maremont had recommended prior to the side-by-side tests; if this bolt assembly replacement policy had been followed, the M60E2 would have been rated as reliable as the MAG58 for only an additional \$215 per weapon in life cycle costs;
- (5) the Army failed to give sufficient consideration to the breakage of the rivets alongside the receiver of the MAG58 between 30,000 and 50,000 rounds of firing; and
- (6) the Army gave insufficient consideration to the fact that the life of the MAG58 is significantly shorter than that of the M60E2 since although the M60E2's were fired\_during OT III to 100,000 rounds, the MAG58 receivers cracked between 66,000 and 75,000 rounds causing them to be removed from further firing.

Maremont contends that if a proper evaluation of the weapons had been made, the M60E2 would have been found at least equal to (if not better than) the MAG58 requiring an award to Maremont as the lowest offeror. In this regard, Maremont contends that the Army violated 10 U.S.C. § 2304(g) (1970) for failing to give sufficient weight to cost and other relevant factors, in particular Maremont's proposed bolt assembly replacement policy; and DOD Directive 5000.28 (1975), Design to Cost, which requires that cost be established "as a parameter equal in importance" with technical requirements.

In any case, Maremont contends that, having never found the M60E2 unacceptable, the Army cannot now say the M60E2 does not meet the Government's minimum requirements. Maremont also alleges that there is no evidence that the M60E2 does not meet the Government's minimum needs, noting that the Army procured the M60E2 for the United States Marine Corps (USMC) for use on the latter's tanks. Also, Maremont

asserts that the Army has never expressed dissatisfaction with the M60 infantry machine gun.

Maremont further contends that the Army has only found the MAG58 to be "superior" to the M60E2, not that the M60E2 did not meet the Government's minimum needs. In this regard, the Buy American Act D&F justifying negotiating the contract with FN merely states that the MAG58 is "the best weapon possible at this time." Maremont contends that this is inconsistent with decisions of our Office, such as 32 Comp. Gen. 384 (1953), and ASPR § 1-1201(a) (1975 ed.), which require that only the actual minimum needs of the Government be procured and that merely preferred or better items in excess of the Government's needs cannot be specified.

Maremont contends that the Army cannot evade the "minimum needs" requirement merely by defining the MAG58 as its minimum needs. In view of the foregoing, Maremont concludes that the Army's selection of the MAG58 was erroneous.

Maremont has made numerous other contentions in support of its protest which will be discussed below.

## B. Preprocurement Evaluation or Procurement

As detailed above, a primary basis of Maremont's protest is that the process by which the MAG58 was selected was in fact a procurement, subject to the applicable procurement rules and regulations, which were not complied with. The Army has strongly disagreed with the characterization of this selection process as a procurement and contends that the entire process was necessary to define its minimum needs. The Army maintains that a replacement for the M-219 machine gun could not be procured until an accurate definition of needs was established.

We believe Maremont entered into the machine gun selection process with its "eyes wide open." It was fully aware at the outset of the side-by-side tests of the informal nature of the selection program, as well as the significant factors, on which basis the Army judged the machine guns. Maremont only first complained that the program should have been a formal procurement in its protest to our Office after the MAG58 selection had been announced. Consequently, we have difficulty

concluding that Maremont was prejudiced by this informal process. Also see discussion below on Disclosure of Evaluation Factors.

Moreover, we agree with the Army's position that this selection process does not constitute a procurement. Each of the steps enumerated by Maremont (listed above) and taken by the Army in the machine gun selection program are legitimate steps which any agency may take in determining its minimum needs.

We have recognized the appropriateness of an agency conducting preprocurement tests to determine whether existing products constitute the Government's minimum needs, or to develop items to meet those needs. See B-168044(1), December 29, 1969; 52 Comp. Gen. 801 (1973); Bio-Marine Industries, B-180211, August 5, 1974, 74-2 CPD 78. Cf. D. Moody and Co., Inc., 55 Comp. Gen. 1 (1975), 75-2 CPD 1 and cases cited therein which recognize the propriety of prequalifying products through preprocurement testing to be listed on a qualified products list.

Another legitimate preprocurement agency action is discussing requirements with potential suppliers. See B-168044(1), supra; B-175721(1), March 19, 1973; 52 Comp. Gen., supra; Bio-Marine Industries, supra. Such discussions are clearly necessary for an agency in the conduct of ordinary business. For example, an agency should be able to survey the market to ascertain what is available or encourage the development of sources to compete with present sole sources. Also, such preprocurement discussions may be appropriate where it appears that a particular firm may be the sole supplier of the item meeting the Government's requirements or where there may be certain special conditions affecting a particular firm, e.g., if the firm is foreign.

It would be unwise and unrealistic to limit such discussions prior to ascertaining what the Government requires. Indeed, discussions with potential suppliers and testing products are often necessary for an agency to rationally determine just what its minimum needs are. An agency cannot intelligently define its needs in a vacuum. In a number of cases, we have criticized the actions of agencies which improperly limited competition because no discussions of requirements were held with potential suppliers, but rather the only firms solicited made products with which agency personnel were familiar. See B-173063, December 29, 1971; Non-Linear Systems, Inc., 55 Comp. Gen. 358 (1975), 75-2 CPD 219.

Also, in the preprocurement stage, an agency may legitimately take cost into account in formulating minimum needs. See B-168044(1), supra; B-175721(1), supra; Winslow Associates, B-178740, May 8, 1975, 75-1 CPD 283. For example, if a valid improvement in an existing \$1,000 system will cost the Government \$100,000 to implement, an agency might well decide that, regardless of the validity of the need the improvement would satisfy, the cost would preclude procurement.

Maremont has asserted that the ROC proposed prior to the MAG58-M60E2 tests represented the Government's requirements around which specifications could have been framed.

However, the ROC was based on minimal data and observations. Much of the data seems merely to reflect the Army's impressions of the M60(MOD) OT II tests and hoped-for improved performance characteristics. For example, see discussion on ROF below. Moreover, the ROC clearly indicates the tentative nature of its required characteristics as follows:

"\* \* \* The statement of requirement for the essential characteristics set forth below are to be used as a basis for designing DT/OT tests and as a standard against which to judge the results of both tests. \* \* \* It should be noted that the values are nominal and could be changed if the tests and operational data and related cost and effectiveness analysis so dictate. (Emphasis supplied.)

Based on our review, we are convinced that, at the time the ROC was developed, the Army did not know, with any reasonable degree of definiteness, the extent of its minimum needs, other than to acquire a reliable and durable "off the shelf" coaxial 7.62mm machine gun to replace the M-219. We believe the Army did not have sufficient data to make a rational minimum needs determination until the side-by-side tests were completed.

In our opinion the ROC was merely an independent basis to which the results of the side-by-side tests could be compared. Moreover, to

the degree the ROC reflected the Army's beliefs at that time regarding its minimum needs, it is clear that the Army was not locked into the ROC's provisions, but could, based upon the demonstrated performance of the machine guns in the tests, legitimately determine that its needs were different from the tentative ROC provisions. See discussion on the Minimum Needs of the Government below.

Also, for the foregoing reasons, we do not believe the Army was required by ASPR § 3-210(xiii) (1975 ed.) to conduct a competitive negotiated procurement in this case. Although this regulation allows an agency to negotiate if it cannot draft adequate specifications defining its requirements, the regulation does not require a procurement where the agency has not yet determined its minimum needs.

In view of the foregoing, we do not believe that the Army was required to comply with the rules and regulations generally governing procurements in conducting the machine gun selection program. See B-168044(1), supra; 52 Comp. Gen. 801; supra. In so finding, we are not sanctioning such informal procedures in cases where the agency can rationally state its minimum needs. See discussion on Disclosure of Evaluation Factors below.

The present case has many parallels to 52 Comp. Gen. 801, concerning the selection of an emergency breathing device for use on Navy ships. The selection of a breathing device manufactured by Lear Siegler, Inc. (LSI) was the culmination of over 4 years of testing of various products, discussions, and evaluation not conducted in a procurement context. As the Army intends here, the Navy's original intent was to find an existing "off the shelf" item with the expectation that, with only slight modification, the item could be made suitable for the Navy's minimum needs. In surveying potential suppliers, the Navy described the characteristics of what was regarded as the optimum breathing device. After extensive testing only Mine Safety Appliance Company (MSAC), the protester, qualified for the side-by-side operational evaluation phase of the program. However, the MSAC device did not meet the optimum requirements and the Navy had reservations concerning safety.

In the meantime, LSI was introduced by the Navy as a contender after a successful demonstration. The Navy and the parties conducted extensive further tests and development on the contender devices. Both the MSAC and LSI devices were found adequate and safe and capable of performing the function for which they were designed prior to the side-by-side tests. However, after the side-by-side tests, LSI's device was selected although neither device had met the optimum

performance criteria the Navy had specified for the tests. Eight months then passed during which time many opportunities were given to LSI to modify its device to try to meet the optimum requirements. When an urgent interim requirement for the device arose, the Navy decided to make a sole-source award to LSI, even though the firm's now prototype device did not yet meet the optimum requirements.

We found no violation of law or regulation in making the sole-source award to LSI, even though much of the extensive product selection process was not conducted in procurement context. However, in view of the opportunities and advantages which had been given LSI during the extended period following MSAC's rejection and since we believed the Government's interests would have been better served if MSAC had been given a similar opportunity to meet the Government's interim requirements, we recommended that MSAC and other qualified firms be given a further opportunity to qualify breathing devices. As discussed below, no such unequal treatment is present here.

#### C. Determinations and Findings

Inasmuch as the selection process was not a procurement, the ASPR § 3-306 (1975 ed.) D&F requirement is not for application. Indeed, this regulation only requires the D&F to be prepared "prior to issuance of a request for proposals." No request for proposals or any other formal statement of work had been prepared by the Army when the D&F was executed. In any case, we have found that an agency's failure to prepare a D&F prior to conducting negotiations preparatory to executing a sole-source contract to be a deviation of form rather than substance, and not a basis for sustaining a protest. See B-175721(1), supra.

#### D. Minimum Needs of the Government

Maremont has contended that the MAG58 is not the Government's actual minimum needs.

The determination of the needs of the Government and the methods of accommodating such needs is primarily the responsibility of the contracting agencies of the Government. 38 Comp. Gen. 190 (1958); B-174140, B-174205, May 16, 1972; Manufacturing Data Systems, Incorporated, B-180608, June 28, 1974, 74-2 CPD 348. We recognize that Government procurement officials, who are familiar with the conditions under which supplies, equipment or services have been used

in the past, and how they are to be used in the future are generally in the best position to know the Government's actual needs, and, therefore, are best able to draft appropriate specifications. Particle Data, Inc., B-179762, B-178718, May 15, 1974, 74-1 CPD 257; Manufacturing Data Systems, Inc., B-180586, B-180608, January 6, 1975, 75-1 CPD 6. Consequently, we will not question an agency's determination of what its actual minimum needs are unless there is a clear showing that the determination has no reasonable basis. Particle Data, Inc., supra; Manufacturing Data System, Inc., B-180608, supra. Furthermore. while determinations to make a sole-source award are subject to close scrutiny by our Office, we have recognized that where the legitimate needs of the Government can only be satisfied by a single source, the law does not require that these needs be compromised in order to obtain competition. Winslow Associates, 53 Comp. Gen. 478, 74-1 CPD 14, and B-178740, supra; Manufacturing Data Systems, Incorporated, B-180608, supra; Johnson Controls, Inc., B-184416, January 2, 1976, 76-1 CPD 4.

On the other hand, we have recognized that procurement agencies are required to state specifications in terms that will permit the broadest field of competition within the minimum needs required and not the maximum desired. 32 Comp. Gen. supra. Specifications based only on personal preference or on a finding that a particular item has superior or more desirable characteristics in excess of the Government's actual needs are generally considered overly restrictive. 32 Comp. Gen. supra; Precision Dynamics Corporation, 54 Comp. Gen. 1114 (1975), 75-1 CPD 402. Cf. Leo Kanner Associates, B-182340, April 4, 1975, 75-1 CPD 205.

With regard to the acquisition of critical human survival items, however, we have recognized that Government agencies may legitimately specify items with superior performance characteristics allowing for as much reliability, effectiveness and safety in performing the function for which they are designed as possible. B-168044(1), supra; 52 Comp. Gen., supra; BioMarine Industries, supra.

It could hardly be termed an illegitimate or unnecessary concern of the Army to require as a valid minimum need a weapon as reliable and effective as technically available. That is to say, we find no unreasonableness in specifying the weapon which has demonstrated that it is the most likely to perform in a "life or death" combat situation.

In this regard, the OT III showed the MAG58 to be 3.5 times as reliable as the M60E2 and in the DT III tests the MAG58 proved 2.5 times as reliable as the M60E2. Also, the M60E2's MRBF on the OT III of 1699 was far less than the albeit tentative ROC minimum reliability requirement of 2675. On the other hand, the MAG58's MRBF of 6442 was far better than even the ROC preferred MRBF of 5500. Although Maremont asserts that had its bolt assembly replacement policy been adopted, the M60E2 would have been rated more reliable, the Army has found that the M60E2 would still be half of the MAG58's reliability even if the policy were implemented. See discussion on Bolt Assembly Replacement Policy below. Moreover, in DT III the MAG58 proved significantly more reliable during sand and dust, and corrosion tests.

The tests did show that the M60E2 had some superior characteristics (e.g., the barrel), and the MAG58 had some deficiencies. The tests indicated that the MAG58 was apparently less durable than the M60E2 even though the MAG58 exceeded the ROC's specified 50,000 rounds minimum. But see the discussion on Rivets and Cracked Receivers below.

However, we believe the Army, in properly exercising broad discretion in the minimum needs area, could balance the relative merits of each weapon and reasonably decide that the MAG58 constituted its minimum needs because of significantly greater reliability. As discussed below, it was made clear to all parties that reliability was the primary criterion under which the replacement machine gun would be selected. See discussion on Disclosure of Evaluation Criteria below.

Also, the Army was entitled to make the MAG58 selection, notwithstanding that weapon's higher cost in relation to the M60E2. In this regard, we have held that there is no requirement that an agency purchase items merely because they are offered at a lower price without intelligent reference to the particular needs to be served. B-174775, March 29, 1972; Manufacturing Data Systems Incorporated, B-180608, supra. That is, an agency's minimum needs can be such that only a particular item can satisfy them notwithstanding the existence of a less expensive item

designed to perform the same functions. In the present case, the Army considered the cost differential prior to selecting the MAG58 and reasonably decided that the MAG58 was worth incurring a cost premium. See discussion on Cost below.

Only one coaxial machine gun was to be selected by the Army for reasons of logistics and training. Under the circumstances, we do not believe the Army had to specifically find the M60E2 unacceptable to justify determining the MAG58 to be a minimum need. Although the M60E2 may be acceptable for safe use on tanks, the Army is not required to accept a significantly less reliable machine gun merely because it can be used to perform the function for which it was designed. See B-168044(1), <a href="mailto:supra">supra</a>.

Furthermore, contrary to Maremont's contentions, we conclude that the Army's tests were proper and fairly conducted. During our prior audit, we reviewed and monitored the Army's tests and stated:

"GAO monitored the tests and believes they were fairly conducted. \* \* \*" B-156500(5), supra, at 1.

"Both Maremont and Fabrique Nationale technical representatives were allowed to observe the engineering tests /DT III/, and they informed us they were satisfied as to its fairness. We observed specific engineering tests conducted on both weapons, monitored the data collection methods, and determined how the data was analyzed. We have no reservations as to the conduct of these tests." B-156500(5), supra, at 16.

"\* \* The field tests  $\sqrt{OT}$  III were adequate for measuring operational reliability. Generally, both tests were adequately designed and conducted to provide critical comparative data between the two guns.

"The tests established the MAG58 as the more reliable weapon. Although the most serious malfunctions occurred when the MAG58 rivets broke, the greater number of stoppages on the M60E2 would seem to pose a greater problem on the battle-field." B-156500(5), supra, at 23.

In addition, Maremont has made certain specific objections to to methodology of the conduct of the tests, e.g., bolt assembly replacement policy, which we have found below did not cast any significant doubt on the reasonableness of the MAG58 selection.

In any case, we have consistently recognized that the responsibility for the establishment of tests and procedures necessary to determine product acceptability is within the ambit of the expertise of the cognizant technical activity. See <u>D. Moody & Company, Inc.</u>, 55 Comp. Gen. supra at 17, and cases cited therein.

The prior findings of M60(MOD) acceptability by various Army activities, as well as the tentative recommendations that the M60(MOD) be selected, do not compel a determination that the M60E2 meets the Government's present actual needs. At the time, the MAG58-M60E2 side-by-side tests demonstrating the MAG58's significantly superior reliability had not yet been performed. Indeed, until the MAG58 was field tested, the only real basis on which the Army could judge the M60E2's performance was its experience with the unreliable M-219.

Also, assuming <u>arguendo</u> that the Army once considered the M60E2 to be a minimum need, we believe the Army is entitled to modify its position as to what costitutes minimum coaxial machine gun needs, upon becoming aware of new information showing significantly superior effectiveness in another weapon. In this regard, we have recognized that:

"\* \* \*it is axiomatic that the Government may obtain technical equipment which employs operational features upgrading the state-of-the-art by taking advantage of the most advanced developments available where the need exists \* \* \* this /Is/ so even though similar equipment generally equivalent from a performance standpoint is commercially available. \* \* \*"

Particle Data, Inc., supra; see B-174140, B-174205, supra.

Moreover, the fact that the Army has never indicated dissatisfaction with the M60 infantry machine gun is not relevant here. The M60E2 is a different weapon used for different purposes and is subject to different stresses.

Furthermore, the Army's procurement of a number of M60E2's for the USMC does not compel a finding that the M60E2 meets the Army's minimum needs. The Army was merely acting as a purchasing agent for the USMC. Also, the USMC purchase came before the OT III and the DT III, which showed the MAG58's superior reliability. (The first 10 M60E2's off the production line which was started to meet the USMC requirement were used in the tests.) The USMC purchase resulted from an immediate need for machine guns for its tanks, and the only field-tested coaxial machine gun at that time, other than the M-219, was the M60(MOD). In any case, we have consistently recognized that one agency's determination of minimum needs is not determinative of the propriety of another agency's minimum needs. See B-174140, B-174205, supra; B-178584, August 29, 1973; 53 Comp. Gen. 270 (1973); D. Moody & Co., Inc., supra, at 21.

Even though the rules and regulations generally governing procurements were not applicable, we believe the Army was under an obligation to treat both contenders fairly. If the Army had not done so, it would have reflected on the reasonableness of its determination that the MAG58 machine gun was its actual need. See 52 Comp. Gen. 801. Based on our review of this program, we believe the Army treated both contenders fairly.

In view of the foregoing, and based on the discussion below of Maremont's specific objections against the selection process, we conclude that the Army's selection of the MAG58 as the replacement coaxial machine gun for the M-219 had a reasonable basis.

## E. Disclosure of Evaluation Criteria

As a corollary to the maxim that potential suppliers should be treated fairly when the Government is ascertaining its requirements, we believe it conducive to a more rational determination of the Government's minimum needs if prospective suppliers are informed as fully as possible of what it is the Government needs. See 52 Comp. Gen. 801.

The Army did not specifically state at the commencement of the sideby-side tests what weight would be accorded the various technical factors and cost because it did not yet know the specific weights the various factors would be accorded in evaluating the machine guns. It was apparent to all parties involved in this program that the paramount performance characteristic the Army needed in the replacement machine gun was reliability. See B-156500(5), supra, at 15, 18. Indeed, the M-219's ineffectiveness, caused by its unreliability and lack of durability, was the reason for the replacement program. Therefore, we believe that Maremont was fully aware, prior to the tests' commencement, of the key technical evaluation characteristic to be considered by the Army, i.e., reliability.

Also, we believe it should have been apparent to Maremont that cost, although important, was secondary to reliability. For example, even though the M-219's cost was in excess of \$4,000 per weapon, with high operating costs, the Army's dissatisfaction with the weapon was never expressed in terms of cost, but rather in terms of lack of reliability and durability.

Also, the coaxial machine gun is one firepower component on tanks costing from \$350,000 to \$700,000. Tank effectiveness as a whole should be considered in evaluating cost differences. Inasmuch as one of the major purposes of the coaxial machine gun is to protect the tank against infantry attack, reliability is obviously an essential element. This is not to calculate the number of American troops who will be saved by having a more reliable and effective machine gun on tanks.

If Maremont was uncertain about how the weapon would be evaluated, inquiries should have been made of the Army at the outset of the side-by-side tests. Cf. BDM Services Company, B-180245, May 9, 1974, 74-1 CPD 237. There is no indication that Maremont made any such inquiries or that either contender lacked essential knowledge or was less well informed than the other.

Moreover, even if Maremont had been more fully informed of the Army's evaluation criteria, we do not believe it could have made any significant improvements to the M60E2 to increase reliability (even assuming such modifications are possible), in view of the clear Army requirement that the replacement machine gun be an in production "off the shelf" weapon. Also, the time needed to develop and test such modifications would have been unacceptable. In any case, Maremont

has not stated just how the M60E2 would have been modified to significantly improve reliability if it had been given the chance. (Maremont merely reasserts its bolt assembly replacement maintenance policy (discussed below.))

Finally, although Maremont contends that evaluation criteria are necessary in order for our Office to ascertain whether the MAG58's selection was reasonable, it is apparent that weapon reliability was of paramount consideration. Moreover, it is our view that complete evaluation criteria cannot be rationally set forth until an agency actually determines its minimum requirements.

#### F. Cost

As indicated by Maremont, in B-156500(5), <u>supra</u>, at 25-32, we raised a number of questions concerning the Army's methodology in computing life cycle costs and the COEA to compare the M60E2 and the MAG58. Maremont asserts that these comments demonstrate that the Army had not properly considered cost, and that if cost and cost effectiveness had been properly evaluated and given sufficient weight the M60E2 would have been rated higher than the MAG58.

As indicated above, an agency may properly consider cost in determining minimum needs. See <u>Winslow Associates</u>, <u>supra</u>. However, there is no legal requirement that the agency accept lower cost items without intelligent reference to actual minimum needs. See <u>Manufacturing Data Systems Incorporated</u>, B-180608, <u>supra</u>. 10 U.S.C. § 2304(g) (1970) is not for application here since the mandate that cost be considered is limited to procurements.

From an audit standpoint, we have frequently stated that proper and impartial cost effectiveness studies are a valuable tool in making a weapon systems selection. See <u>Life Cycle Cost</u>

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Acquisitions, PSAD 75-23, B-163058, December 30, 1974; <u>Improvements</u>

Needed in Cost Effectiveness Studies for Major Weapons Systems, PSAD 75-54, B-163058, February 12, 1975. However, as recognized in B-163058, February 12, 1975, <u>supra</u>, at 1:

"In many cases the system judged the most cost-effective is the one favored for acquisition. Sometimes other considerations, such as the criticality of achieving unprecedented system performance, has dictated choosing a weapon which was not the most cost-effective due to its high cost."

The most significant audit concern expressed in B-156500(5), <u>supra</u>, with regard to the Army's cost studies was the inclusion of ammunition costs in the life cycle costs. This particular disagreement with the Army's methodology is of note because the MAG58 has the highest relative cost efficiency if ammunition is included in the Army's evaluation while the M60E2 has the highest efficiency if ammunition is not considered.

We felt the inclusion of ammunition in the cost effectiveness analysis was questionable because this indirect cost did not represent an incremental cost. Our position in this regard has been more fully explained in B-163058, December 30, 1974, supra, at 9 as follows:

"Perhaps a more basic question is the extent to which indirect costs should be considered in preparing the estimate for choosing between alternative systems. In evaluating a new system the impact on operating and maintenance cost is best measured by determining the incremental (or decremental) cost of adding the new system to the inventory. Most indirect costs are fixed and, therefore, not affected by the substitution of a new system for another."

Although we may disagree from an audit standpoint with the Army's inclusion of ammunition costs in the cost effectiveness study, we note that the Army did perform a cost study not including ammunition costs, and was aware, when it made the machine gun selection, that the M60E2 was rated the most cost effective under this study.

In any case, as noted above, it is clear that the Army, acting within its reasonable discretion and based on factors other than cost, e.g., reliability, can determine that a "less cost effective" item represents its minimum needs.

#### G. Design to Cost Policy

We do not believe the replacement coaxial machine gun program falls under DOD's <u>Design to Cost Policy</u> (DOD Directive 5000.28 May 23, 1975), which is directed at programs involving full scale research and developmental production of major weapon systems. The program here involved a limited testing and evaluation program to find an "off the shelf" substitute for the unsatisfactory M-219.

In any event, DOD Directive 5000.28 is a matter of DOD policy, and as such does not establish legal rights and responsibilities. See 43 Comp. Gen. 217, 221 (1963); Federal Leasing Inc., 54 Comp. Gen. 872 (1975), 75-1 CPD 236; Planning Research Corporation Public Management Services, Inc., 55 Comp. Gen. 911 (1976), 76-1 CPD 202.

#### H. Commonality

The M60E2 has many parts in common with the M60 infantry machine gun. That is, 166 of the 263 M60E2 parts (63 percent) are common. These parts are estimated to be 85 percent of M60E2's value.

On the other hand, the only commonality the MAG58 has with other United States weapons is the use of the North Atlantic Treaty Organization (NATO) standard 7.62 millimeter ammunition. Also, it is theoretically possible that parts could be exchanged with those NATO countries which use the MAG58, but, as we concluded in B-156500(5), supra, at 11:

"The contribution that either the MAG58 or M60E2 would make to NATO standardization of equipment appears marginal. It would, therefore, appear that this would not be a major factor influencing the selection of either gun."

Maremont has asserted that the Army disregarded or did not properly consider the M60E2's commonality advantage. However, our review of the Army's evaluations shows that the Army did consider the M60E2's advantages.

For example, in computing life cycle costs, the Army took into account that tooling for the M60 and the M60E2 already existed (the latter because of the USMC purchase), and that an existing inventory

of M60 common parts existed. Furthermore, from our review of the record (including classified documents), it is clear that other advantages of the M60E2's commonality were considered in the selection.

Maremont also alleges that it has been prejudiced by the Army's lack of regard for commonality in making the selection. In this regard, Maremont states that during the developmental phase of the program it was continuously discouraged by the Army from making any of its numerous suggested modifications to the M60E2 solely because of the Army's repeated expressed desire for M60-M60E2 interchangeability. Maremont believes these modifications would have significantly improved the M60E2's performance and reliability.

The Army readily admits encouraging Maremont to maintain interchangeability between the M60 and the M60E2. However, the Army asserts that this was expressed as a goal and not as a mandatory requirement. Also, the Army states that only one proposed modification by Maremont in the conversion of the M60(MOD) to the M60E2 was rejected. Moreover, the Army states that since 1969 Maremont has repeatedly stressed interchangeability and parts commonality as one of the strongest selling points of the M60(MOD)/M60E2.

From our review of the record, we have found only one instance where the Army rejected a suggested modification by Maremont. That was a proposal to change the M60 standard (right side) cover latch. This proposal was rejected because of commonality. We are satisfied that this change, if approved, would not have improved the M60E2's reliability. On the other hand, the other modifications to the M60(MOD) suggested by Maremont were approved by the Army and no changes were imposed by the Army on Maremont.

Furthermore, as discussed above (Disclosure of Evaluation Factors), we do not believe Maremont could have disregarded commonality in modifying the M60E2 without straying from the "off the shelf" requirement; nor has Maremont made any specific suggestions regarding proposed weapon modifications.

#### I. Rate of Fire

The MAG58's average ROF of 820 rounds per minute far exceeded the ROC's specified ROF of between 400 and 650 rounds per minute with the lower limit preferred. The M60E2 came within the ROC's parameters. Maremont contends that the Army's waiver of this traditional ROF range was indefensible.

The Army has taken the position that good rationale for the ROC ROF requirement was lacking. In this regard, the Army, as a part of the COEA, reviewed the rationale for the ROC ROF. The COEA acknowledges that no in-depth analysis was made to determine optimal ROF for the ROC due to limited time. The Army found the requirement was historically based on avoiding undue ammunition expenditure. This rationale was found not to be applicable for the coaxial machine gun because it has a large ammunition storage potential.

Further, as indicated above, the ROC values were clearly stated to be nominal and subject to change. Also, the Army knew prior to the side-by-side tests that the MAG58 exceeded the ROC ROF. Also, Maremont was undoubtedly aware that the MAG58 had a much higher ROF than the M60E2. Moreover, the OT III showed that the MAG58's higher ROF did not adversely affect accuracy as compared to the M60E2. Finally, Maremont was not prejudiced by the MAG58's failure to meet the ROC ROF because the MAG58's high ROF was not a factor affecting its selection to any large degree and Maremont could not increase the M60E2's ROF without making the weapon a prototype in view of the complex design factors which would accompany any change in the weapon's ROF.

## J. Bolt Assembly Replacement Policy

The major complaint which Maremont has raised regarding the conduct of the tests was the Army's failure to allow the M60E2 to be tested using a bolt assembly replacement policy proposed by Maremont. Maremont has asserted that had this policy been adopted for operating the M60E2, as Maremont repeatedly urged prior to the side-by-side tests, the M60E2's tested reliability would have been equivalent to that of the MAG58. Maremont also notes that the total additional life cycle costs for each weapon if this policy were adopted would be only \$215 per weapon for a total weapon cost of \$922 as compared to the MAG58's \$1,517.

Although it certainly was not clear, we believe Maremont's suggested assembly replacement policy was as follows: when a part failure occurred (apparently at any time) during the OT III in the bolt assembly, operating rod assembly or drive spring assembly, the tank crew members would replace the assembly containing the defective part with a new unused assembly, and the used assembly would be discarded. Maremont has limited its protest to only bolt assembly replacement probably because this was where the bulk of the part failures occurred in the M60E2's. Also, contrary to some Army statements, Maremont has never, on the record, recommended automatic replacement of bolt assemblies at 15,000 rounds.

There is considerable dispute and confusion surrounding the bolt assembly replacement policy proposed by Maremont. Therefore, we will summarize the facts as we have found them, based on our review of the record.

On August 8, 1975, prior to the side-by-side tests, Maremont was notified by the Army of the tentative ground rules for the OT III, including:

"d. For logistic evaluation, cost of replacement parts will be at the lowest level of assembly for authorized organizational or direct support maintenance."

In other words, parts were to be replaced on a piece rather than an assembly level.

On August 12, 1975, Maremont requested clarification regarding this condition. By letter to the Army dated August 13, 1975, Maremont stated:

"Maremont would like to <u>suggest</u> an approach to determining the level assembly at which spare parts will be replaced during the pending tests of the Armor Machine Gun contenders.

- "A. For the D.T. testing replace parts at the lowest component level. This test would then provide a large data base for part life.
- "B. For the O.T. testing replace parts at the level at which spares are provided. For example: Bolt Assembly, Feed cover Assembly, Drive Spring, etc..

"This would mean that the operational nature of the test would remain and the troop's ability to field the system could be more fairly evaluated." (Emphasis supplied.)

However, the Army informed Maremont that the maintenance procedure for OT III would be as previously planned.

There is no probative evidence on the record that Maremont "repeatedly urged" the Army to adopt this policy, nor is there any indication that Maremont was displeased with the nonacceptance of its suggestion until after OT III's completion. Notwithstanding various inquiries of Maremont prior to and during the tests, no mention of Maremont's bolt assembly replacement policy was made to our Office's representatives until after OT III's completion. In addition, the Army denies that Maremont ever strongly pursued this suggestion.

Under OT III procedures applicable to the M60E2, we understand that the following maintenance procedures were followed on the M60E2 bolt assembly: when a failure occurred because of a defective part in the bolt assembly, the tank crew replaced the bolt assembly with another one. The deficient bolt assembly was then refurbished at the organizational level by replacing the defective parts only. The assembly was then returned to the tank for use. These actions are consistent with the Army's standard operating procedure (SOP) that piece part rather than assembly repair be performed on small arms, including the weapons in the M60 line.

After OT III's completion, by letter dated December 29, 1975, Maremont informed the Army:

"The operational performance of the M60E2 during these tests would have been vastly improved if the following procedures and recommendations were followed.

"1. Part replacement within the operating group (bolt assembly, operating rod and drive spring) should have been made at the assembly level instead of at the lowest component level. This was recommended by Maremont prior to the start of testing and if followed would have eliminated many stoppages. (Most of the stoppages and failures encountered were directly related to the operating group). Many of the

common M60 component parts failures in this group do not cause stoppages and are discovered only during cleaning.

"2. When the weapon is deployed in a combat situation a new operating group (bolt assembly, operating rod and drive spring) should be installed as a unit if replacement of any part within that group is required. These parts are provided in the BII Kit and this procedure would insure 15,000-20,000 rounds of trouble-free performance at a cost of less than \$100."

This letter appears to state the same bolt assembly replacement policy set out above, and was the first sign of severe disagreement by Maremont as to the conduct of the tests.

A technical analysis of the failures indicates that 60 percent of the parts replaced on the M60E2 in DT III and OT III were bolt assembly components. Also, once a component of the bolt assembly failed, the likelihood of other bolt assembly parts failing increased. It appears that these accelerating "domino like" bolt assembly component failures may well be curbed to some degree if the entire assembly were replaced.

The Army conducted an analysis of the OT III data, which found that the assembly replacement procedures would reduce stoppages about 30 percent and failures about 45 percent. According to the Army, the bolt assembly replacement policy would add \$215 in assembly costs over the life of the weapon. However, the MAG58 (6442 MRBF) is still rated more than twice as reliable as the M60E2 even accepting the bolt assembly replacement policy of Maremont (3054 MRBF).

In its last letter to our Office dated July 28, 1976, Maremont gave a different version of the proposed bolt assembly policy. When an initial failure in the bolt assembly occurred, only the minor parts would be replaced and the assembly would be returned to service. This less costly proposal is inconsistent with all prior Maremont bolt assembly replacement suggestions. Also, we have doubts that this newly proposed policy would significantly increase M60E2 reliability. It is very possible that other factors, e.g., bolt body wear (which was observed during the tests), may be causing the bolt assembly malfunctions. No data of record supports the feasibility of this more limited policy. Therefore, we will not consider it further.

The specific reasons the Army has advanced for refusing to allow the bolt assembly policy to be used in the OT III were (1) inconsistency with Army SOP; (2) the OT II between the M60 (MOD) and M-219 could be used as a data base if the same test methods were used, so as to allow the M-219 to be used as a control weapon, on which to base analyses of the MAG58 and M60E2; and (3) part life data could be compared for engineering purposes if piece part repair was done. In addition, Maremont's August 13 letter proposing the policy, besides being unclear and nonspecific, was framed as merely a suggestion, and the Army treated it as such. Also, as discussed above, Maremont did not pursue this matter with the Army until after the OT III's completion.

In view of the foregoing, we believe the Army had a reasonable basis for declining to use Maremont's suggested policy in OT III. In this regard, as noted above, the Army has considerable discretion as to how to conduct tests to insure product acceptability. See <u>D. Moody & Company</u>, supra, at 17.

The question remains, however, in view of the OT III data indicating that the M60E2's performance could be significantly improved if the bolt assembly replacement policy were adopted, whether the Army has a reasonable basis for not considering the M60E2 to be substantially equal in performance to the MAG58 or for declining to further test the M60E2.

Even assuming the Army lacks a rational basis for the application of its piece part repair SOP to the M60E2, we believe the Army has a reasonable basis for declining to test the M60E2 further or consider it equal to the MAG58.

As indicated above, the Army's analysis of OT III showed that the M60E2's reliability would improve 45 percent under the assembly replacement policy, i.e., to 3054 MRBF. This MRBF was based on an analysis of the first 50,000 rounds of the OT III with the assumption.

that the bolt assembly, operating rod and operating rod springs would be replaced at 15,000 rounds intervals. The M60E2 OT III failures were analyzed to ascertain whether the malfunction would have occurred if the assembly policy had been accomplished. The Army then applied a 20-percent adjustment to the number of prevented malfunctions to account for personnel judgmental error and inherent probability of random stoppage occurrences, and computed the MRBF.

The MAG58's MRBF for OT III was 6442, or over 2.1 times as reliable as the M60E2, assuming use of the assembly replacement policy. Consequently, we believe the Army would be justified in deciding the MAG58's significantly greater reliability justified its selection over the M60E2.

Maremont has challenged the validity of this Army study. In particular, Maremont contends that the 20-percent discount figure is unnecessary because the bolt malfunctions are clearly recognizable and traceable from the OT III data. By Maremont's analysis of OT III, the M60E2's MRBF, with the bolt assembly replacement policy, would be 3821, which Maremont states is within the range of the MAG58's MRBF, and is well within the ROC's minimum MRBF.

From our review, we are not in the position to challenge the 20-percent figure used by the Army in its data analyses. Maremont has not successfully discredited this figure. Moreover, the zero percent figure proposed by Maremont cannot be valid, since personnel errors and random failures as a natural result of mechanism operation would cause some number of bolt assembly component failures.

With regard to the Army's OT III data study's general validity, we note that it was necessarily based upon various assumptions. Actual operational tests would be required to ascertain how much reliability the M60E2 would gain if the bolt assembly replacement policy were adopted. See B-156500(5), <a href="mailto:supra">supra</a>, at 23. Nevertheless, we believe the Army's OT III data study was based on the best data available and has validity.

In any case, by Maremont's own OT III data analysis, the M60E2's MRBF is only 59 percent of the MAG58's MRBF. The Army has stated that, based on Maremont's analysis, it fails to see how the M60E2 with the bolt assembly replacement policy can be considered reasonably equivalent to the MAG58 in reliability. We agree with the Army that, based on the foregoing analyses of the M60E2 bolt assembly replacement policy, the difference in reliability between the two weapons is still very significant.

Maremont performed an analysis of the DT III (not performed by the Army) similar to the Army OT III study. Maremont contends the DT III data is more reliable as a measure of weapon performance because that test was conducted by experienced weapons technicians under controlled conditions. Also, Maremont claims the OT III data was suspect because newly trained troops were used under uncontrolled conditions. Maremont also notes that the troops received 32 hours training (8 hours maintenance) on the MAG58 as compared to 24 hours training (2 hours maintenance) on the M60E2. Maremont's DT III analysis, which also unreasonably assumes that no bolt assembly malfunctions will occur after the policy is adopted, purports to show that the two weapons are essentially equal in reliability.

As indicated by Maremont, there are significant differences in methodology and purpose between the OT III and the DT III. Because of these differences, the Maremont DT III study is not as valid as the Army's OT III study.

The DT III was in this case essentially diagnostic, e.g., to determine causes of stoppages and failures. The DT III was performed in a laboratory environment using a fixed mount and expert weapons technicians. Unlike the OT III, when a stoppage occurred in the DT III, the weapon was carefully inspected and sometimes disassembled to precisely ascertain the exact cause of the stoppage; the offending component was then replaced. In addition, preventive maintenance procedures, not used in the OT III, were followed. For example, the length of the operating springs was carefully measured after each firing sequence, and if shortness or wear showed, they were replaced even if no malfunctions had occurred. This preventive maintenance policy was applied to other mechanisms as well, including the bolt assembly components. These procedures, which are inconsistent with the operational use of the weapon, significantly limit the DT III's value as an indicator of operational reliability. Consequently, any

analysis of DT III parts failure data in an attempt to hypothecate M60E2 operational reliability, if the bolt assembly replacement policy were adopted, must be considered of doubtful validity.

In contrast, the primary purpose of the OT III, which was fairly conducted under test conditions with experienced armor troops, was to measure operational reliability in a simulated combat environment. Also, the MAG58 and M60E2 troop training were regarded as equivalent in scope; the troops' familiarity with the M60 primarily accounting for the training time differences. Also, although Maremont now denigrates the OT III's validity, it was not heard to complain about the OT III or the troop training prior to the test's commencement.

Therefore, the Army study based on the operational test data must be regarded as having much more validity than the Maremont DT III analysis.

Moreover, as previously discussed, Maremont only suggested and did not press the Army on the bolt assembly replacement policy prior to the side-by-side tests. Also, as can be discerned from the foregoing, the details of the M60E2 bolt assembly replacement policy have never been made clear or specific by Maremont. Furthermore, other than the DT III study, Maremont has presented no studies or data of its own weapon, which would cast doubt on the Army OT III analysis or which would tend to indicate that the reliability of the M60E2 would be increased by the bolt assembly replacement policy to be anywhere equivalent to that operationally demonstrated by the MAG58.

Finally, the Army has a current urgent need for a replacement "off the shelf" coaxial machine gun. Several months in time and substantial money would have to be expended for further operational tests on the M60E2. Consequently, the Army could reasonably conclude that further tests would not be warranted, in view of its OT III analysis which assumed the adoption of the bolt assembly replacement policy and indicated the clear maintained superiority in reliability enjoyed by the MAG58 over the M60E2.

#### K. MAG58's Broken Rivets

Maremont also contends that the Army disregarded or did not give adequate consideration to the breakage of the rivets located alongside the MAG58's receiver between 30,000 and 50,000 rounds.

However, as indicated in B-156500(5), <u>supra</u>, at 19-20, the Army did consider this malfunction. In the Army's COEA evaluation, the MAG58 was assessed a 9-hour combat unavailability penalty. This assessment was based upon the Army's determination that the rivet repair would be made at a direct support unit level. Maremont takes issue with this time estimate, apparently believing that rivet repair on the MAG58 must be done at a higher maintenance level under Army procedures, i.e., depot level. The probable reason for Maremont's belief is that the M60E2's rivets are much more difficult to repair than the MAG58 rivets. The repair of rivets in a MAG58 is a relatively easy process, which can be performed in about 30 minutes with the tools provided in the MAG58 tool kit.

In addition, FN has indicated that certain improvements have been made to the MAG58, including reinforcing the rivets in question. From our review of the FN data, we are satisfied that this and the other changes proposed by FN are minor modifications, which should not adversely affect the MAG58's reliability. FN tested the modified MAG58's to 100,000 rounds under the supervision of a Belgian Government official. (The Army did not monitor those tests.) The rivets in question broke at 74,000 to 84,000 rounds, which is a significant improvement over the MAG58's OT III performance. The Army has reported that these minor modifications will be incorporated into the MAG58's purchased at no additional cost to the Government.

## L. MAG58's Cracked Receivers

Maremont also contends that the Army disregarded or did not adequately consider the cracks in the MAG58 receivers suffered between 66,000 and 75,000 rounds in OT III. These cracks caused them to be removed from further firing because of suspected safety hazards. Maremont also refers to our criticisms of the Army's cost evaluation of this problem in B-156500(5), supra, at 28:

"During peacetime each gun in the <u>active forces</u> is estimated to fire 6,000 rounds of ammunition a year or 90,000 rounds during a 15-year life. This created a problem in assigning costs to the

MAG58 because the five test guns only averaged 70,000 rounds when the receivers cracked. The Army assumed the 12,925 guns in the active forces would be rotated with those in the inactive forces. The effect of this assumption is that on the average, each of the 18,191 guns purchased would only fire 63,900 rounds in a 15-year life. If rotation is not accomplished, up to \$18 million could be added to the MAG58 alternative to purchase more guns in about 11 years when the receivers would likely crack."

Although we did not conclude the Army's cost analysis was improper, as is contended by Maremont, we note that the Army's analysis is based on an uncertain assumption regarding how machine guns will be rotated between active and inactive forces.

Nevertheless, the cracked receiver problem was otherwise adequately considered by the Army. After OT III, the Army decided to further fire the MAG58's to see how the hairline cracks in the receivers would react and to ascertain whether a safety hazard really existed. After a Navy weapons expert examined the weapons and concluded that the cracks did not constitute a physical safety hazard, the MAG58's were safely fired to a minimum of 86,000 rounds. From the foregoing, it would appear that the useful life of the MAG58 may extend to about 15 years, even assuming rotation of the weapons is not accomplished, since the MAG58's with cracked receivers could well be suitable for peacetime use.

In addition, we note that the malfunction rate of the M60E2's was accelerating rapidly (well below ROC minimum requirements) as they neared 100,000 rounds. Consequently, the M60E2's usefulness would appear to become more limited with age as well.

Also, the Army conducted stress tests on the MAG58's cracked receivers. These tests indicated that a one millimeter thicker receiver wall would result in the receiver not cracking.

Another modification to the MAG58 which FN made in an attempt to correct the deficiencies discovered during the side-by-side tests was to add the suggested one millimeter of thickness to the receiver wall. The MAG58's were successfully test fired for 100,000 rounds with

no receiver cracks occurring. This particular minor modification is reportedly in use on the MAG58's currently installed in Swedish tanks. The Army indicates that this modification will be incorporated into the MAG58's purchased.

It could be argued that the Army in allowing FN to modify the MAG58 after the M60E2 was disqualified falls under our decision in 52 Comp. Gen. 801 (discussed in detail above). However, unlike the situation there, the modifications here are minor and can only improve a weapon that is already clearly superior. As discussed above, Maremont could not and has not proposed to make the significant improvements to the M60E2 necessary to make its reliability equal to the MAG58's.

#### III. AMERICAN PRODUCT PREFERENTIAL LAWS

#### A. Buy American Act.

#### 1. Background

Maremont also contends that any purchase of the MAG58's from FN would violate the Buy American Act, 41 U.S.C. §§ 10a-d (1970), which states in pertinent part:

## "\$ 10a. American materials required for public use

Notwithstanding any other provision of law, and unless the head of the department or independent establishment concerned shall determine it to be inconsistent with the public interest, or the cost to be unreasonable, only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States, and only such manufactured articles, materials, and supplies as have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured, as the case may be, in the United States, shall be acquired for public use. This section shall not apply with respect to articles, materials, or supplies for use outside the United States, or if articles, materials, or supplies of the class or kind

to be used or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

\* \* \* \* \*

"\$ 10d.

"In order to clarify the original intent of Congress, hereafter, section 10a of this title and that part of section 10b(a) of this title preceding the words 'Provided, however,' shall be regarded as requiring the purchase, for public use within the United States, of articles, materials, or supplies manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, unless the head of the department or independent establishment concerned shall determine their purchase to be inconsistent with the public interest or their cost to be unreasonable."

Maremont states that since the M60E2 is acceptable, the Buy American Act's application would require the selection of the M60E2 in view of the price advantage over the Belgian MAG58.

On June 24, 1976, the Assistant Secretary made a determination that the Buy American Act was not applicable to this procurement. This determination reads as follows:

- "1. That the MAG-58 is not manufactured in the United States in sufficient and reasonable available commercial quantities and of a satisfactory quality.
- "2. That in view of all of the above and the demonstrated performance advantages of the MAG-58, it is inconsistent with the public interest not to procure this weapon from Fabrique Nationale in sufficient quantity to meet urgent operational requirements of the Army until there is a domestic source available. A technical data package with production

rights sufficient for competitive procurement will be obtained from Fabrique Nationale so as to permit U.S. production."

#### 2. Nonavailability Exception

With regard to the Assistant Secretary's first determination, we have recognized that where an agency has sufficient justification to make a sole-source award to a foreign firm, it can validly determine that since the items are not manufactured in the United States "in sufficient and reasonably available commercial quantities and of a satisfactory quality," the Buy American Act is not applicable. See B-174026, February 8, 1972; B-179007, November 12, 1973; ASPR § 6-103.2(a) (1975 ed.). Since, as found above, the Army has a reasonable basis for finding that the MAG58 represents the Government's minimum needs, and since only FN can deliver the MAG58 in the relatively short time frame necessary, we believe the Army's determination in this regard is valid.

Furthermore, the fact that the M60E2 is in the same "class or kind" as the MAG58 does not require the Act's application, since the M60E2 is not considered to be "of satisfactory quality" to meet the Government's minimum needs.

Also, B-166308, April 23, 1969, cited by Maremont, is not pertinent here, since, although the foreign item may have been superior in that case, the domestic item met the Government's minimum requirements and was offered at a reasonable price. In the present case, the Army found that the M60E2 does not meet the Government's minimum needs.

#### 3. Public Interest Determination

Determinations regarding whether it is not in the public interest to purchase the items from domestic sources are matters of discretion vested in the Government departments—and not our Office. 41 Comp. Gen. 70, 73 (1963); B-170026, December 14, 1970; 51 Comp. Gen. 195, 198 (1971). To support this determination, the Assistant Secretary found, among other things, that only FN could supply the MAG58 in time to satisfy the Government's immediate requirements.

We are not persuaded by Maremont's claim that 41 U.S.C.\$10d (1970) requires determinations that the purchase of domestic items will be inconsistent with the public interest, and that therefore the Army's deviant determination that it is not in the public interest not to purchase the MAG58 from FN is invalid. We believe the Assistant Secretary's second determination must necessarily imply a determination that it is not in the public interest to purchase from a domestic firm.

Also, there is nothing that limits the application of the "public interest" exception to international agreements as is implied by Maremont.

Therefore, we do not believe the Army's discretion in determining that application of the Buy American Act would not be in the public interest can be questioned.

#### 4. Foreign Use

The Army intends initially to purchase 2,500 MAG58's for installation in armored vehicles deployed in Europe and 300 MAG58's for United States training of Army personnel preparatory for duty in Europe. Therefore, the Army contends that the Buy American Act does not apply to the initial MAG58 purchase in any case.

We agree. In a very similar case, B-168333, May 27, 1970, we found that the Buy American Act should not be applied to procurements of ammunition parts primarily intended for use in Southeast Asia, even though 5 percent of the parts were going to be used for training in the United States. See also 49 Comp. Gen. 176 (1969); ASPR § 6-103.1 (1975 ed.)

#### B. Balance of Payments Program

ASPR §§ 6-800 to 6-807 (1975 ed.) implement the DOD policy in furtherance of the Balance of Payments Program. The purpose of this program is the reduction of dollar expenditures outside of the United. States. Since the first 2,800 weapons are to be deployed in Europe and for United States training for European duty, consideration must be given to the Balance of Payment provisions. See B-168333, supra.

ASPR § 6-805.1 (1975 ed.) states:

"6-805.1 Policy. Except as provided in 6.805.2, proposed procurement of supplies for use outside the United States shall be restricted to United States end products. Proposed procurement of foreign services shall be made only if authorized by 6-805.2."

ASPR  $\S$  6-805.2(v) (1975 ed.) states in pertinent part:

"(v) Nonavailability in the United States—procurements as to which it is determined in advance by the individuals designated in (b) below that (l) the requirements can only be filled by foreign end products or services, because United States end products or services are not available per se, or are not available within the time required to meet urgent military requirements directly related to maintaining combat capability, the health and safety of DoD personnel, or to protect property, and (2) that it is not feasible to forego filling the requirements or to provide a United States substitute for it. \* \* \*"

The Assistant Secretary has determined with regard to the Balance of Payments program in a D&F:

- "1. The Department of the Army requirements for coaxial machine guns for armored vehicles deployed in Europe can only be filled by the MAG-58, a foreign end product, because United States end products are not available within the time required to meet urgent military requirements directly related to maintaining combat capability.
  - "2. It is not feasible to forego filling this requirement or provide a United States substitute for the MAG-58."

Since the MAG58 represents the Government's minimum needs (and the M60E2 does not), and 34 months are needed to develop a domestic supplier of the MAG58, we believe the Assistant Secretary's determination of nonapplicability of the Balance of Payments Program is valid. See B-161895, December 29, 1967.

- C. Specialty Metals Preference
- 1. Would Award Violate Provisions?

On May 17, 1976, Maremont protested that an award to FN, whose MAG58 undoubtedly contained specialty metals, would violate the provisions of section 723 of the DOD Appropriations Act, 1976, 90 Stat. 172, February 9, 1976, which states in pertinent part:

"No part of any appropriation contained in this Act shall be available for the procurement of any article of \* \* \* specialty metals \* \* \* produced in the United States or its possessions, except to the extent that the Secretary of the Department concerned shall determine that a satisfactory quality and sufficient quantity of any articles of \* \* \* specialty metals \* \* \* produced in the United States or its possessions cannot be procured as and when needed at United States market prices and except procurements outside the United States in support of combat operations, \* \* \*"

However, earlier, on February 4, 1976, FN had agreed, without exception, that ASPR § 7-104.93 (1975 ed.), which implements the foregoing standard Appropriation Act provision, would be acceptable to FN. This clause states in pertinent part:

# "PREFERENCE FOR DOMESTIC SPECIALTY METALS (MAJOR PROGRAMS) (1974 APR)

"(a) The Contractor agrees that any specialty metals (as hereinafter defined) incorporated in articles delivered under this contract will be melted in the United States, its possessions, or Puerto Rico; provided, that this clause shall have no effect to the extent that the Secretary or his designee has determined as to any such articles that a satisfactory quality and sufficient quantity cannot be procured as and when needed at United States market prices\* \* \*."

Compliance with this clause would satisfy the 1976 DOD Appropriation Act's specialty metals requirements.

We note that the Congress currently has under consideration the DOD Appropriations Act - 1977, H.R. 14262, in which certain modifications to the standard Appropriation Act provision affecting specialty metals has been made by the United States Senate. There are differences between the House of Representatives and Senate versions of this provision, and the legislation has not yet passed.

#### 2. Effect of Compliance with Specialty Metals Clause

Upon learning of FN's acceptance of the clause, Maremont contends that the MAG58, if it contained American-melted specialty metals, would have to be requalified since the MAG58 to be procured is a different weapon and the side-by-side test data would no longer be valid. In this regard, Maremont explains that American-melted specialty metals could well have slightly different metallurgical characteristics, which could have a major impact on the performance of the MAG58.

In its supplementary report in response to these contentions, the Army has implied that specialty metals are nominally used in the MAG58. However, our review, in consultation with a weapons expert, of the FN proprietary data showing the specialty metals contained in the MAG58 indicates that a significant percentage of the MAG58, including many operating parts, is composed of various specialty metals. As indicated by Maremont, metallurgical differences between American-melted and the foreign specialty metals now used by FN in the MAG58 possibly could have a significant impact on the MAG58's performance. On the other hand, it is now uncertain as to what American-melted specialty metals will be required to be employed in the MAG58 by the clause.

With regard to the possible impact the use of American-melted metals may have on the MAG58, the Army has stated:

"The metals used by \* \* \*  $/\overline{\text{FN/}}$  in the fabrication of the MAG 58 have equivalent U.S. steel classification codes. In general, the technical differences between U.S. and European steels are of such a nature that in the judgment of  $/\overline{\text{Army/}}$  \* \* technical personnel, a requalification test beyond the normal first item production test will not be necessary."

Although there could well be different technical judgments on the impact of the possible use of American-melted specialty metals in the MAG58, we are not in the position to say the Army's technical judgment lacks a reasonable basis. In this regard, since determinations regarding the needs of the Government are the responsibility of the procuring agency concerned, the judgment of such agency's specialists and technicians as to whether an item meets the Government's requirements should be accorded considerable deference. This is particularly the case where questions of a highly technical or scientific nature are involved, and the determinations must be made based on expert technical opinion. See 52 Comp. Gen. 382, 385 (1972); METIS Corporation, 54 Comp. Gen. 612

(1975), 75-1 CPD 44; <u>Harding Pollution Control Corporation</u>, B-182899, July 3, 1975, 75-2 CPD 17.

In view of the foregoing, we are unable to find that FN's compliance with the ASPR specialty metals clause casts significant doubt on the reasonableness of the MAG58 selection. However, in view of the specialty metal problem and the minor modifications which have been made by FN to the MAG58 (discussed above), we recommend that the first article testing of the MAG58, which the Army states it will require, be sufficiently thorough to insure that the MAG58 still meets the Government's requirements.

#### IV, ALLEGED SECRET DEAL

Maremont has alleged to the court that a secret deal may exist between DOD and Belgium, whereby the MAG58 was to be selected as quid pro quo for the Belgian selection of the F-16 aircraft. We refer to B-156500(5), supra, at 1, where we summarized the results of our investigation into this particular matter as follows:

"\* \* \*GAO found nothing to indicate that a purchase commitment had been made, but the Belgians were assured the MAG58 would be favorable considered if it proved itself in the tests."

Also, see B-156500(5), supra, at 9, 11. We also refer to the transmittal letter to the Chairman of the Committee on Appropriations, United States Senate, summarizing our Staff Study on Multinational F-16 Agreements, ID 76-12, B-152600, September 2, 1975 (Staff Study itself is classified). In that letter we summarized our findings with regard to the relationship of the F-16 purchase and the MAG58 as follows:

"The Secretary of Defense had promised to give favorable consideration if the weapon met the U.S. Army's requirements and if it was competitive in price."

We are unaware of any further uncovered documentation which would support Maremont's contentions in this regard.

### V. CONCLUSION

Based upon the foregoing review, we conclude that the Army has violated no law or regulation in, and had a reasonable basis for, determining the MAG58 coaxial machine gun to be the Government's minimum need.

Accordingly, Maremont's protest is denied.

Comptroller General of the United States